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1 [Data mining techniques for optimizing inventories for electronic commerce](#)



Anjali Dhond, Amar Gupta, Sanjeev Vadhavkar

 August 2000 **Proceedings of the sixth ACM SIGKDD international conference on Knowledge discovery and data mining**

Publisher: ACM Press

 Full text available: [pdf\(238.69 KB\)](#) Additional Information: [full citation](#), [references](#), [index terms](#)
Keywords: data massaging, inventory optimization, temporal data mining

2 [Iron and steelmaking facility planning simulation model](#)



David P. Koch

 December 1979 **Proceedings of the 11th conference on Winter simulation - Volume 1**

Publisher: IEEE Press

 Full text available: [pdf\(595.22 KB\)](#) Additional Information: [full citation](#), [abstract](#), [index terms](#)

Simulation models of iron and steelmaking facilities have been successfully developed to test the productive capabilities of numerous plants. Representative, critical facilities and events have been selected for discussion.

3 [Computational sciences \(CS\): Computational analysis of microwave heating patterns in resonant multimode cavities](#)



Dusko D. Dincov, Kevin A. Parrott

 March 2004 **Proceedings of the 2004 ACM symposium on Applied computing**

Publisher: ACM Press

 Full text available: [pdf\(1.04 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#)

Computational results for the microwave heating patterns in singlefed multimode empty and loaded cavities are presented in this paper. Combined Finite Difference Time Domain (FDTD) and Finite Volume (FV) methods are used to solve the equations that describe the electromagnetic field and heat transfer in the processed samples. The coupling between the two schemes is through a change in dielectric properties which are assumed to be temperature dependent. The model takes into account the changing e ...

4 [Using force feedback for multi-sensory display](#)



Keith V. Nesbitt, Randall J. Gallimore, Bernard J. Orenstein

 January 2001 **Australian Computer Science Communications , Proceedings of the 2nd Australasian conference on User interface AUIC '01**, Volume 23 Issue 5

Publisher: IEEE Computer Society , IEEE Computer Society Press

Full text available:  pdf(591.55 KB) Additional Information: [full citation](#), [abstract](#), [references](#)

 [Publisher Site](#)

This paper describes an investigation into the application of Virtual Environments to enable multi-sensory interpretation of data. The data being interpreted is a multivariate mathematical model of fluid flow and temperature within a blast furnace. Temperature and blast furnace structure is displayed in a visual 3D model while force feedback is used to display the fluid flow field. The application was developed for a specific Virtual Environment called the 'Haptic Workbench'. This technology is ...

5 Poster session: papers included: Simulation based decision for steelmaking operations challenges

Marcelo Moretti Fioroni, Luiz Augusto G. Franzese, Edson Luis M. Harano, Benedito Pedro Costhek, João Bosco Mendes, Joeli Cuzzuol, Juliana de Souza Lima, Ricardo Baeta Santos, Robson Jacinto Coelho, Adriano César Silva, Odair José Kimsr

December 2005 **Proceedings of the 37th conference on Winter simulation WSC '05**

Publisher: Winter Simulation Conference

Full text available:  pdf(500.99 KB) Additional Information: [full citation](#), [abstract](#), [references](#)


Companhia Siderúrgica de Tubarão CST, is investing to expand production level in 50%, adding new equipment and altering production process. Simulation is widely used in CST, mainly in strategic phases prior to capital investment. A previous simulation model developed with ARENA was enhanced to help CST achieve new goals: to analyze new process plan with operational details, testing different production and operational scenarios, evaluating new procedures and best practices. Two cas ...

6 Introduction to Demos

Graham Birtwistle

December 1981 **Proceedings of the 13th conference on Winter simulation - Volume 2**

Publisher: IEEE Press

Full text available:  pdf(1.11 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)


Demos [1,2] is yet another discrete event simulation language hosted in Simula. It was released in 1979 and is now running on IBM, DEC, UNIVAC, and CDC hardwares amongst others. The paper contains a short introduction to Simula's object and context features; an explanation of the process approach to simulation; a brief comparison of Simula and GPSS; and finally, the main features of Demos are presented via an example.

7 General applications and methodology: General methodology 3: global search strategies for simulation optimisation

George D. Magoulas, Tillal Eldabi, Ray J. Paul

December 2002 **Proceedings of the 34th conference on Winter simulation: exploring new frontiers**

Publisher: Winter Simulation Conference

Full text available:  pdf(236.39 KB) Additional Information: [full citation](#), [abstract](#), [references](#)

Simulation optimization is rapidly becoming a mainstream tool for simulation practitioners, as several simulation packages include add-on optimization tools. In this paper we are concentrating on an automated optimization approach that is based on adapting model parameters in order to handle uncertainty that arises from stochastic elements of the process under study. We particularly investigate the use of global search methods in this context, as these methods allow the optimization strategy ...

8 Simulation of a plant-wide inventory pull system



Brian L. Slobodow

December 1993 **Proceedings of the 25th conference on Winter simulation**

Publisher: ACM Press

Full text available:  pdf(376.88 KB) Additional Information: [full citation](#), [references](#)



9 Fable: A programming-language solution to IC process automation problems



Harold L. Ossher, Brian K. Reid

June 1983 **Proceedings of the 1983 ACM SIGPLAN symposium on Programming language issues in software systems**

Publisher: ACM Press

Full text available: [pdf\(1.38 MB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The Stanford University Center for Integrated Systems is embarking on an ambitious project to formally characterize integrated circuit fabrication processes, and to provide a degree of automation of research and prototyping activities in the IC fabrication facility. A crucial component of this project is the ability to represent an IC fabrication "recipe" in a repeatable, transportable, device-independent fashion. We have designed the language Fable for this purpose: it offers s ...

10 The role of animation in decision-making



J. Michael Binnie, David L. Martin

December 1988 **Proceedings of the 20th conference on Winter simulation**

Publisher: ACM Press

Full text available: [pdf\(547.06 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Animation can be an integral part of the simulation analysis process by communicating problem areas to decision makers and suggesting alternative designs or control strategies. Animation can be used in conjunction with typical simulation output measures to provide a comprehensive analysis package. The major contribution of animation to the process is its ability to provide a means to view the dynamics of system component interactions. How animation was used during analysis in three projects ...

11 Phase change recording



Henk van Houten, Wouter Leibbrandt

November 2000 **Communications of the ACM**, Volume 43 Issue 11

Publisher: ACM Press

Full text available: [pdf\(661.19 KB\)](#)

[html\(35.98 KB\)](#)

Additional Information: [full citation](#), [references](#), [index terms](#)

12 Expert system for blast furnace operation



Yong C. Chen, H. Abramowitz, J. Ricketts, J. Hevezi

June 1990 **Proceedings of the 3rd international conference on Industrial and engineering applications of artificial intelligence and expert systems - Volume 1 IEA/AIE '90**

Publisher: ACM Press

Full text available: [pdf\(623.19 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Quality improvement has become a major focus in the steel industry during the 1980's. Improvements in product quality can be achieved by upgrading and replacing equipment or by standardizing operating procedures and practices. Since upgrading and replacing equipment requires large capital investments, the logical choice for enhancing quality is through operation standardization. Once practices and procedures have been standardized through use of statistical studies and recording operators' ...

13 The organization of cooperative work: beyond the "Leviathan" conception of the organization of cooperative work



Kjeld Schmidt

October 1994 **Proceedings of the 1994 ACM conference on Computer supported cooperative work**

Publisher: ACM Press

Full text available:  [pdf\(1.69 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)


This paper examines the relationship between cooperative work and the wider organizational context. The purpose of the exploration is not to contribute to organizational theory in general, but to critique the transaction cost approach to organizational theory from the point of view of cooperative work. The paper posits that the formal conception of organization—organization conceived of in terms of “common ownership”—is inadequate as a conceptual fou ...

14 [Superimposing direct search methods for parameter optimization onto dynamic simulation models](#)

Rainer Heckler, Hans-Paul Schwefel

January 1978 **Proceedings of the 10th conference on Winter simulation - Volume 1**

Publisher: IEEE Press

Full text available:  [pdf\(604.94 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

An integrated modular software package has been developed by the Programme Group of Systems Analysis and Technological Development (STE) of the Nuclear Research Centre at Jülich (KFA) to provide automatic optimization of a set of user defined decision variables. This optimization module containing different procedures for direct search algorithms can be added to our FORTRAN based Data-Model-Interface (DMI) for dynamic simulation (1). The latter is formulated independently fr ...

15 [A strategy for mapping from function-oriented software models to object-oriented software models](#)

Joseph George, Bradley D. Carter

March 1996 **ACM SIGSOFT Software Engineering Notes**, Volume 21 Issue 2

Publisher: ACM Press

Full text available:  [pdf\(967.06 KB\)](#) Additional Information: [full citation](#), [abstract](#), [citations](#), [index terms](#)


Because of being in transition or because of choice, many software development environments make use of both the function-oriented and object-oriented approaches in their software development process. In some cases, object-oriented and function-oriented approaches are used in the development of the same system, such as when using function-oriented analysis with object-oriented design, necessitating a transition or mapping from one model to the other. This paper reviews the issues involved in map ...

16 [Applications of machine learning and rule induction](#)

Pat Langley, Herbert A. Simon

November 1995 **Communications of the ACM**, Volume 38 Issue 11

Publisher: ACM Press

Full text available:  [pdf\(554.28 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Machine learning is the study of computational methods for improving performance by mechanizing the acquisition of knowledge from experience. Expert performance requires much domain-specific knowledge, and knowledge engineering has produced hundreds of AI expert systems that are now used regularly in industry. Machine learning aims to provide increasing levels of automation in the knowledge engineering process, replacing much time-consuming human activity with automatic tec ...

17 [SLAM tutorial](#)

Claude Dennis Pegden, A. Alan B. Pritsker

January 1980 **Proceedings of the 12th conference on Winter simulation**

Publisher: IEEE Press

Full text available:  [pdf\(589.39 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

SLAM is a simulation language that allows for alternative modeling approaches. It allows systems to be viewed from a process, event, or state variable perspective. These

alternate modeling world views are combined in SLAM to provide a unified systems modeling framework (1,4). In SLAM, a discrete change system can be modeled within an event orientation, process orientation, or both. Continuous change systems can be modeled using either differential or differ ...

18 SLAM tutorial

Claude Dennis Pegden, A. Alan B. Pritsker

January 1981 **Proceedings of the 13th conference on Winter simulation - Volume 1**

Publisher: IEEE Press

Full text available:  pdf(611.54 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This paper provides an overview of the important features of the SLAM simulation language. The focus of the paper is the unified system-modeling framework of SLAM which allows systems to be viewed from process, event, or state variable perspectives.

19 An analytic study of the phase transition line in local sequence alignment with gaps



R. Bundschuh, T. Hwa

April 1999 **Proceedings of the third annual international conference on Computational molecular biology**

Publisher: ACM Press

Full text available:  pdf(937.23 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

Keywords: first-passage percolation, longest common subsequence, phase transition, sequence alignment

20 A volumetric method for building complex models from range images



Brian Curless, Marc Levoy

August 1996 **Proceedings of the 23rd annual conference on Computer graphics and interactive techniques**

Publisher: ACM Press

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L3	0	furnace same model\$4 same radius same bed same cavity	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/12/15 17:39
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